

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

- Claim 1. (Original) Heating apparatus for a printing plate oven comprising at least one heating element extending in a first direction wherein a printing plate is arranged, in use, to pass the heating element in a second direction which is at an angle to the first direction.
- Claim 2. (Original) Apparatus according to claim 1 in which the heating element comprises a substantially linear heating element.
- Claim 3. (Original) Apparatus according to claim 2 in which the linear heating element comprises a longitudinal axis which extends in the first direction.
- Claim 4. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the printing plate is arranged, in use, to pass underneath the or each heating element.
- Claim 5. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the heating apparatus comprises a plurality of heating elements.
- Claim 6. (Original) Apparatus according to claim 5 in which each heating element comprises a longitudinal axis which extends in the first direction.
- Claim 7. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the or each heating element comprises a lamp.
- Claim 8. (Original) Apparatus according to claim 7 in which the or each heating element comprises an infra-red lamp.
- Claim 9. (Currently Amended) Apparatus according to claim 7 ~~or claim 8~~ in which the or each lamp comprises a halogen lamp.
- Claim 10. (Currently Amended) Apparatus according to ~~any one of claims~~ claim 7 to 9 in which the or each lamp is pulsated in order to control the heat generated by the respective lamp.
- Claim 11. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the angle between the first direction and the second direction is less than or equal to substantially 70°.

Claim 12. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the heating elements are arranged spaced apart laterally across the heating apparatus.

Claim 13. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 wherein, if a part of a printing plate passes underneath a first end of a first heating element then said part of the printing plate passes underneath a second end of a second (adjacent) heating element.

Claim 14. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the or each heating element comprises a first end which is located upstream of second end of the respective heating element such that a printing plate is arranged, in use, to pass underneath the first end of the heating element and subsequently underneath the second end of the heating element.

Claim 15. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the heating apparatus comprises a first group of heating elements located centrally laterally in the heating apparatus and one right group and one left group of heating elements located adjacent to the lateral edges of the heating apparatus.

Claim 16. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the or each heating element comprises reflecting means.

Claim 17. (Original) Apparatus according to claim 16 in which the or each reflecting means is located above the respective heating element.

Claim 18. (Currently Amended) Apparatus according to claim 16 ~~or claim 17~~ in which the reflecting means comprises a first side wall and a second side wall in order to direct the heat.

Claim 19. (Currently Amended) Apparatus according to ~~any one of claims~~ claim 16 ~~to 18~~ in which the reflecting means maintains and reflects the heat radially out from the respective heating element within an angle and wherein the angle is substantially 80°.

Claim 20. (Currently Amended) Apparatus according to ~~any one of claims~~ claim 16 ~~to 19~~ in which the reflecting means reflects the heat downwardly towards an upper surface of a printing plate, in use.

Claim 21. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the heating apparatus comprises an array of heating elements wherein the longitudinal axes of the heating elements are parallel.

Claim 22. (Original) Apparatus according to claim 21 in which the heating elements form a herring bone pattern within the heating apparatus.

Claim 23. (Currently Amended) Apparatus according to ~~any preceding~~ claim 1 in which the heating apparatus comprises cooling means.

Claim 24. (Original) Apparatus according to claim 23 in which the cooling means is arranged, in use, to cool the or each heating element.

Claim 25. (Currently Amended) Apparatus according to ~~any one of claim 16 to claim 20 or any one of claim 21 to 23 when dependent upon any one of claim 16 to claim 20~~ in which the reflecting means is arranged such that the heat reflected from a first heating element overlaps on a surface of a printing plate, in use, with the heat reflected from an adjacent heating element.

Claim 26. (Original) A method of heating printing plates in an oven compartment of a printing plate oven comprising heating at least one heating element wherein the heating element extends in a first direction and moving a printing plate passed the heating element in a second direction which is at an angle to the first direction.

Claim 27. (Original) A method according to claim 26 in which the method comprises passing the printing plate underneath the heating element.

Claim 28. (Currently Amended) A method according to claim 26 ~~or claim 27~~ in which the method comprises providing a plurality of heating elements in the heating apparatus.

Claim 29. (Currently Amended) A method according to ~~any one of claim 26 to claim 28~~ in which the method comprises providing an array of heating elements in a herring bone pattern in the heating apparatus.

Claim 30. (Original) Drive means for a printing plate, the drive means being arranged, in use, to drive a printing plate wherein the drive means comprises a first roller and the first roller comprises an outer surface for contacting the printing plate in which the outer surface of the roller comprises at least one raised portion.

Claim 31. (Original) Drive means according to claim 30 in which the drive means is for use in a printing plate oven.

Claim 32. (Currently Amended) Drive means according to claim 30 ~~or claim 31~~ in which the first roller comprises a drive roller which is driven.

Claim 33. (Currently Amended) Drive means according to ~~any one of claim 30 to claim 32~~ in which the outer surface of the first roller comprises a plurality of raised portions.

Claim 34. (Currently Amended) Drive means according to ~~any one of claim 30 to claim~~

~~33~~ in which the or each raised portion extends radially around the outer surface of the first roller.

Claim 35. (Original) Drive means according to claim 34 in which the or each raised portion extends completely radially around the outer surface of the first roller to provide a cylindrical support surface.

Claim 36. (Currently Amended) Drive means according to ~~any one of claim 30 to claim 35~~ in which the drive means comprises urging means to urge the printing plate towards the first roller, in use.

Claim 37. (Original) Drive means according to claim 36 in which the urging means comprises a second roller.

Claim 38. (Original) Drive means according to claim 37 in which the outer surface of the second roller is spaced from the outer surface of the first roller by a distance slightly less than the thickness of a printing plate to be driven therethrough.

Claim 39. (Currently Amended) Drive means according to claim 37 ~~or claim 38~~ in which the second roller is biased relatively towards the first roller.

Claim 40. (Currently Amended) Drive means according to ~~any one of claim 30 to claim 39~~ in which the ~~outersurface~~ outer surface of the first roller comprises a deformable or resilient material.

Claim 41. (Currently Amended) Drive means according to ~~any one of claims claim 30 to claim 40~~ in which the urging means comprises a second roller wherein the outer surface of the second roller comprises at least one raised portion.

Claim 42. (Original) Drive means according to claim 41 in which the or each raised portion on the second roller extends radially around the outer surface of the second roller.

Claim 43. (Currently Amended) Drive means according to claim 41 ~~or claim 42~~ in which the second roller has an outer surface contoured or shaped identical to the first roller.

Claim 44. (Original) Drive means according to claim 43 in which the raised portions of the second roller are off set longitudinally along the urging roller in order for a raised portion in one roller to locate within a channel portion defined between two adjacent raised portions on the other roller.

Claim 45. (Currently Amended) Drive means according to ~~any one of claims claim 30 to claim 44~~ in which adjacent raised portions on the or each roller define a channel portion therebetween.

Claim 46. (Currently Amended) Drive means according to ~~any one of claim 36 or any one of claims 37 to 45~~ when dependent upon claim 3Gm which the first roller has raised portions which are offset laterally with raised portions of the urging means.

Claim 47. (Original) Drive means according to claim 46 in which the raised portions are offset such that a part of a printing plate is not contacted simultaneously on both surfaces.

Claim 48. (Original) A method of driving a printing plate, the method comprising driving a roller to drive the printing plate wherein the roller comprises an outer surface for contacting the printing plate in which the outer surface of the roller comprises at least one raised portion.

Claim 49. (Currently Amended) A method according to claim 48 in which the method comprises urging the printing plate into contact with the ~~outersurface~~ outer surface of the roller.

Claim 50. (Currently Amended) A method according to claim 48 ~~or claim 49~~ in which the method comprises passing the printing plate between two rollers wherein one of the ~~roller~~ rollers is driven.

Claim 51. (Original) Cooling means for use with a printing plate oven wherein the cooling means comprise deflection means in order to flex a part of a printing plate during cooling.

Claim 52. (Original) Cooling means according to claim 51 in which the cooling means applies a tensile force to a printing plate during cooling.

Claim 53. (Currently Amended) Cooling means according to claim 51 ~~or claim 52~~ in which the deflection means comprises a deflection member.

Claim 54. (Currently Amended) Cooling means according to ~~any one of claim 51 to claim 53~~ in which the deflection means comprises guide means.

Claim 55. (Original) Cooling means according to claim 54 in which the guide means guides the printing plate in a first direction and is arranged to guide the printing plate in order to abut the deflection member which flexes and deflects the printing plate in order for the printing plate to travel in a second direction.

Claim 56. (Currently Amended) Cooling means according to ~~any one of claims~~ claim 51 ~~to 55~~ in which the deflection means comprises a deflecting roller.

Claim 57. (Original) Cooling means according to claim 56 in which the printing plate is arranged to pass between a first guide member around an arcuate part of an outer surface of the deflecting roller and to a second guide member.

Claim 58. (Original) Cooling means according to claim 57 in which the first guide member is spaced from the second guide member by a distance less than the longitudinal length of the printing plate.

Claim 59. (Currently Amended) Cooling means according to ~~any one of claims~~ claim 51 to 58 in which the printing plate is flexed laterally across the width thereof during cooling.

Claim 60. (Currently Amended) Cooling means according to claim 56 ~~or any one of claim 57 to claim 59 when dependent upon claim 56~~ in which the deflecting roller comprises a driven deflecting roller.

Claim 61. (Original) A method of cooling a printing plate comprising flexing at least a part of the printing plate during cooling.

Claim 62. (Original) A method according to claim 61 in which the method comprises tensing at least a part of the printing plate during cooling.

Claim 63. (Currently Amended) A method according to claim 61 ~~or claim 62~~ in which the method comprises flexing the printing plate over a lateral direction.

Claim 64. (Original) Heating apparatus for a printing plate oven comprising heating apparatus and control means wherein the control means is arranged, in use, to control the heat of the heating apparatus relative to a part of a printing plate passing therethrough.

Claim 65. (Original) Heating apparatus according to claim 64 in which the part comprises a section which may be defined on the printing plate due to the location of the part relative to its longitudinal and/or lateral position on the printing plate.

Claim 66. (Currently Amended) Heating apparatus according to claim 64 ~~or claim 65~~ in which the control means is arranged, in use, to control the heat of the heating apparatus relative to the longitudinal position of the printing plate which is located in the heating apparatus.

Claim 67. (Currently Amended) Heating apparatus according to ~~any one of claim 64 to claim 66~~ in which the heating apparatus is arranged to simultaneously provide a first temperature to one part of the printing plate and a second temperature to another part of the printing plate.

Claim 68. (Original) Heating apparatus according to claim 67 in which the heating apparatus is arranged to simultaneously provide a third temperature to a third part of the printing plate.

Claim 69. (Currently Amended) Heating apparatus according to ~~any one of claim 64 to claim 68~~ in which the control means controls the heat of the heating apparatus in a first period which is an entry period.

Claim 70. (Currently Amended) Heating apparatus according to claim 69 ~~in 69~~ in which the control means controls the heat of the heating apparatus in a second period which is an exit period.

Claim 71. (Original) Heating apparatus according to claim 70 in which the control means controls the heat of the heating apparatus in a third period which is an intermediary period between the entry period and the exit period.

Claim 72. (Currently Amended) Heating apparatus according to ~~any one of claim 64 to claim 71~~ in which the control means is arranged to control the heat of the heating apparatus in a plurality of periods or sections whilst the printing plate is passing through the heating apparatus.

Claim 73. (Currently Amended) Heating apparatus according to ~~any one of claim 64 to claim 72~~ in which the control means controls the heat supplied by a plurality of heating elements in the heating apparatus -

Claim 74. (Currently Amended) Heating apparatus according to ~~any one of claim 64 to claim 73~~ in which the control means is arranged to supply heat to a printing plate such that the printing plate is defined in a plurality of zones wherein each zone is arranged to be supplied with a different amount of heat.

Claim 75. (Original) Heating apparatus according to claim 74 in which the printing plate is divided into a plurality of lateral sections such that the heat supplied to outermost side sections is greater than that applied to the other sections located between the outermost side sections.

Claim 76. (Currently Amended) Heating apparatus according to ~~any one of claims claim 64 to claim 75~~ in which the printing plate is divided such that an intermediary section locates between a front section and a rear section.

Claim 77. (Original) Heating apparatus according to claim 76 in which the heat applied to the intermediary section is less than that applied to the front section but is greater than that applied to the rear section.

Claim 78. (Original) A method of controlling heating apparatus of a printing plate oven comprising controlling the heat applied to the printing plate and varying the heat relative to a part of a printing plate passing through heating apparatus.

Claim 79. (Original) A method according to claim 78 in which the method comprises varying the heat laterally across the heating apparatus.

Claim 80. (Currently Amended) A method according to claim 78 ~~or claim 79~~ in which the method comprises varying the heat as a printing plate passes therethrough in order to heat the printing plate dependent upon the longitudinal location of the printing plate in the heating apparatus.

Claim 81. (Original) Ambient temperature regulation means for a printing plate oven comprising sensor means wherein the sensor means is arranged to sense the ambient temperature within an oven compartment of the printing plate oven and to cool the oven compartment of the printing plate oven when a predetermined ambient temperature is reached.

Claim 82. (Original) Ambient temperature regulation means according to claim 81 in which the ambient temperature regulation means comprises exhaust means.

Claim 83. (Original) Ambient temperature regulation means according to claim 82 in which the exhaust means comprises a plurality of exhaust ports.

Claim 84. (Original) Ambient temperature regulation means according to claim 83 in which the exhaust ports are operable in order to enable fluid communication between the oven compartment and an external atmosphere.

Claim 85. (Currently Amended) Ambient temperature regulation means according to claim 83 ~~or claim 84~~ in which the exhaust port(s), once opened, is arranged, to be closed when a predetermined ambient temperature has been reached.

Claim 86. (Currently Amended) Ambient temperature regulation means according to ~~any one of claim 83 to claim 85~~ in which the temperature regulation means is arranged to maintain the ambient temperature of the oven compartment within a predetermined range or below a set temperature relative to a selected ambient temperature.

Claim 87. (Original) A method of regulating the ambient temperature in an oven compartment of a printing plate oven comprising sensing the ambient temperature within the printing plate oven and cooling the ambient temperature when a predetermined temperature is sensed by the sensing means.

Claim 88. (Original) A method according to claim 87 in which the method comprises exhausting part of the air of the oven section.

Claims 89 - 98. (Canceled)